UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,067	09/17/2003	Jose I. Suarez	CM03347JD01	5493

			EXAMINER
22917	7590	07/10/2006	SHAH, UTPAL D

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ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☒ Claim(s) *13-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____ .

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Claim Objections

In regards to claim 1, the applicant is notified that the limitation in line 2, "the input digital signal" has no antecedent basis, since the preamble recites a different limitation "an input data signal". Appropriate action is needed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5,481,308 by Hartung et al. (Hartung).

3. In regards to claim 1, Hartung discloses a method for encoding an input data signal comprising of the steps of (fig 1):

performing a signal decomposition on the input digital signal to obtain a transformation of said input signal; (fig. 3, shows decomposing and outputting the image data.)

forming a plurality of subsets of the transformed data signal corresponding to a set of regions of the data set by grouping the transformed data; (fig. 1,3-4 and 8-9, show selecting many subsets of transformed data.)

and calculating a measure of activity corresponding to each of the plurality of

subsets of the transformed data. (fig. 1,3-4 and 8-9, Hartung discloses measuring

spatial activity and variation in different ways to adaptively encode the image.)

4.   In regards to claim 2, Hartung discloses further comprising a step of: selecting a

set of regions based on the measure of activity. (fig. 1, 3-4 and 8-9, Hartung discloses

selecting the set of regions.)

5.   In regards to claim 3, Hartung discloses further comprising a step of: ordering the

set of regions based on the magnitude of the measure of activity corresponding to each

of the plurality of subsets of the transformed data. (fig. 1,3-4 and 8-9, Hartung discloses

that the data is ordered in a number of different ways for adaptive image coding.)

6.   In regards to claim 4, Hartung discloses further comprising a step of: determining

whether to extract a subset of the transformed data of spatially correlated regions on the

basis of the measure of activity; and extracting such subset from the transformed data.

(fig. 1,3-4 and 8-9, Hartung clearly shows grouping of subsets which are correlated by

at least time, space, and/or frequency.)

7.   In regards to claim 5, Hartung discloses where the set of transformed data

corresponds to the sub-banded output of a multi-level wavelet transformation. (fig. 1,3-4

and 8-9)

8.   In regards to claim 6, Hartung discloses further comprising a step of: selecting a

set of regions, corresponding to the lowest frequency sub-band, sub-band 0, based on

the measure of activity. (fig. 9, Hartung discloses selecting regions in lowest frequency

sub-band.)

9.   In regards to claim 7, Hartung discloses further comprising a step of: ordering the

set of regions based on the magnitude of the measure of activity. (fig. 1,3-4 and 8-9,

Hartung discloses that the data is ordered in a number of different ways for adaptive

image coding.)

10.   In regards to claim 8, Hartung discloses further comprising the steps of:

        selecting a set of regions based on the measure of activity for the three sub-

bands spatially adjacent to the lowest frequency sub-band; ordering the set of regions

corresponding to each of the three sub-bands based on the magnitude of the measure

of activity; and using the measure of activity to determine whether to extract a subset of

the transformed data in the regions corresponding to their spatially correlated higher

frequency sub-bands. (fig. 1,3-4 and 8-9, Hartung clearly shows grouping of subsets

which are correlated by at least time, space, and/or frequency.)

11.   In regards to claim 9, Hartung discloses further comprising the step of: ordering

the set of regions corresponding to the spatially correlated higher frequency sub-bands

based on the magnitude of the measure of activity. (fig. 1,3-4 and 8-9, Hartung

discloses that the data is ordered in a number of different ways for adaptive image

coding.)

12.   In regards to claim 10, Hartung discloses further comprising the step of: selecting

the set of regions based on either the channel bandwidth, or bit rate, or image quality, or

image resolution. (col. 1, lines 16-20)

13.   In regards to claim 11, Hartung discloses a method of processing a set of

transformed input data outputted by a wavelet filter bank decomposer comprising the

steps of (fig. 1):

receiving a set of transformed data input; computing a set of measures of

variation corresponding to as set of selected areas of a transformed input data; (. fig.

1,3-4 and 8-9, shows decomposing and outputting the image data. Hartung also

discloses measuring spatial activity and variation in different ways to adaptively encode

the image.)

selecting a subset of the set of areas of the transformed input data on the basis

of the set of measures of variation; (fig. 1, 3-4 and 8-9, Hartung discloses selecting the

set of regions.)

determining an ordering for the subset of the set of areas on the basis of the set

of measures of variation; and grouping a set of subsets of the set of transformed input

data on the basis of the set of measures of spatially correlated sub-bands. (fig. 1,3-4

and 8-9, Hartung discloses that the data is ordered in a number of different ways for

adaptive image coding. Hartung clearly shows grouping of subsets which are correlated

by at least time, space, and/or frequency.)

14.   In regards to claim 12, Hartung discloses further comprising the step of:

transmitting the set of subsets of the set of transformed data coefficients. (fig. 4,

Hartung discloses a channel for transmission of data.)

Allowable Subject Matter

15.   Claims 13-19 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

In regards to claim 13, the closest prior art Hartung discloses "selecting a

plurality of blocks of transformed input data corresponding to the set of all sub-bands;

and" (fig. 1,3-4 and 8-9, Hartung discloses that the data is ordered in a number of

different ways for adaptive image coding.). However, Hartung fails to disclose the

limitations "forming norm planes of plurality of blocks of transformed input data on the

basis of the set of measures of variations". It is for this reason that claim 13 would be

allowable if rewritten in independent form.

Claims 14-19 are allowed for being dependent on claim 13.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teaching for the art and are applied to the specific limitations within the individual claim, other passages and figures may applied as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirely as potential teaching all or part of the claimed invention, as well as the context of the a passage as taught by the prior art or disclosed by the examiner.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Utpal D. Shah whose telephone number is 571-272-8568. The examiner can normally be reached on M-F (9 AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

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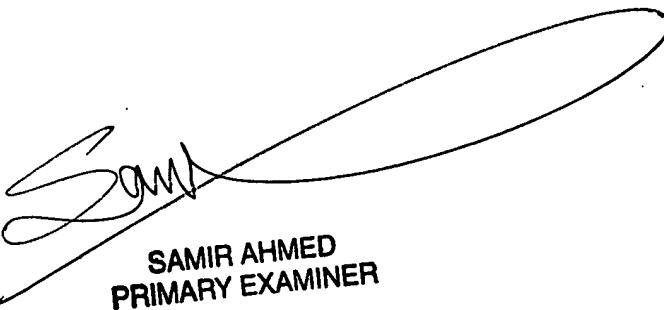
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